(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 17 June 2004 (17.06.2004)

PCT

(10) International Publication Number WO 2004/050849 A2

(51) International Patent Classification⁷:

C12N

(21) International Application Number:

PCT/US2003/038227

- (22) International Filing Date: 1 December 2003 (01.12.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/430,305

2 December 2002 (02.12.2002) US

- (71) Applicants (for all designated States except US): THE GOVERNMENT OF THE UNITED STATES OF AMERICA, as represented by THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES [US/US]; National Institutes of Health, Office of Technology Transfer, Suite 325, 6011 Executive Boulevard, Rockville, MD 20852-3804 (US). MEMORIAL SLOAN-KETTERING CANCER CENTER [US/US]; Office of Industrial Affairs, 1275 York Avenue, New York, NY 10021-6007 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): PASTAN, Ira [US/US]; 11710 Beall Mountain Road, Potomac, MD 20854 (US). ONDA, Masanorl [JP/US]; 320 Lorraine Drive, Rockville, MD 20852 (US). CHEUNG, Nal-Kong [US/US]; 3 Glen Park Road, Purchase, NY 10577 (US).

- (74) Agent: SIEGEL, Susan, Alpert; Klarquist Sparkman, LLP, One World Trade Center, Suite 1600, 121 SW Salmon Street, Portland, OR 97204 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

Published:

- without international search report and to be republished upon receipt of that report
- with (an) indication(s) in relation to deposited biological material furnished under Rule 13bis separately from the description

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



(54) Title: RECOMBINANT IMMUNOTOXIN AND USE IN TREATING TUMORS

(57) Abstract: Immunotoxins are disclosed that include a toxin, a variable region of a heavy chain of a monoclonal antibody that binds the antigen specifically bound by monoclonal antibody 8H9, and a variable region of a light chain of the monoclonal antibody that binds the antigen specifically bound by monoclonal antibody 8H9 and effector molecule. These immunotoxins include scFv and dsFv of monoclonal antibody 8H9. The immunotoxins are of use for the treatment of tumors.